

REMARKSStatus of claims

Claims 1-21 are present for examination.

Amendments

Claims 19-21 are amended to overcome the rejection under Section 101.

The amendments to the remaining claims address editorial matters not going to the merits of the claims.

No new matter is added.

Section 101 rejections

Claims 19-21 are amended to specify that they pertain to a computer readable medium that stores a computer program for controlling a computer in the manner described in the claims. A computer readable medium is an article of manufacture that constitutes patent eligible subject matter under Section 101.

Prior art rejections

Claims 1-3 and 5-21 were rejected under Section 102(b) as being anticipated by Uchida (U.S. 6,330,620). Claim 4 was rejected under Section 103(a) as being obvious over Uchida in view of Furuya (US 2002-0049886).

Applicant believes that the present claims are distinct from the cited art and requests reconsideration with particular focus on the conditions under which points are added and subtracted to a point total for a component that is used to degrade that component. The claimed invention simplifies the adding process by adding predetermined points at predetermined time intervals. In every independent claim in the present application, points for a component are subtracted when a processing fault occurs, and added after a predetermined time period since the last time they were added - without reference to what the component is actually doing (alternatively, points can be added for a processing fault and subtracted after a predetermined time period, depending on whether the component is degraded upon its point total being above or below a certain value). For example, claim 1 specifies:

a trouble point recovery unit which adds an another predetermined point value to the point value stored in said trouble point storage unit, when a predetermined time period passes since the trouble point recovery unit had added to the point value a last time.

In other words, a predetermined point value is added to the point total for that component after a predetermined time passes since points were last added, for example, at regular intervals.

The rejection noted that Uchida has an upgrade function (Figure 4) that adds points to the total for a component, and a downgrade function (Figure 5) that subtracts points from the total for a component. However, Uchida adds or subtracts points based on different conditions than those specified in the present claims. Uchida adds (or subtracts) points based on two conditions: a successful operation, or an error. For example, at col. 5, lines 7-10, Uchida states:

Each time the array controller 10 operates a disc drive unit 31, [it] starts the upgrade function if the operation is successful and starts the downgrade function if an error is caused, requiring a retrial.

Similar descriptions are provided for each specific embodiment described by Uchida; see col. 6, lines 54-60 and col. 7, lines 4-10. Uchida does not teach the approach of the present claims, in which points are subtracted when a processing fault occurs, and added back at predetermined times. Therefore Uchida does not anticipate the claims. Furuya does not teach or suggest this feature.

It is therefore submitted that all claims are allowable over the cited references on this basis.

In addition, claim 4 specifically recites a trouble case table storing point values of each disk and a processing-time-reference exceeding case table storing point values of each disk. the official action points to Furuya at Figure 1 (table 7a) and par. [0054]. However the cited portions of Furuya describe table 7a as a table that records, in bit-map form, a block where an error or a time-out has occurred. This is completely different from the tables (trouble case table storing point values of each disk and a processing-time-reference exceeding case table storing point values of each disk) specified by claim 4, which store points to be subtracted at the time at which an error occurs. Therefore, the combined references fail to teach the features required by claim 4, and claim 4 is patentable on this additional basis.

The foregoing amendments and remarks address all bases for objection and rejection and are believed to place the case in condition for allowance. The examiner is invited to contact the undersigned to resolve any remaining issues.

Respectfully submitted,

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